

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application: to be determined

Group: to be determined

Title: METHOD AND DEVICE FOR SUPPLYING
A FLOWABLE MEDIUM TO THE TOBACCO OF
A SMOKING PRODUCT

Examiner: to be determined

Inventor: Grzonka et al.

Filed: to be determined

Preliminary Amendment Under 37 CFR §1.111

Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

This is a Preliminary Amendment for the invention referenced above. Please amend the claims presented for the invention referenced above as follows:

IN THE CLAIMS

Claim 1. (Amended) A method for supplying a flowable medium to the tobacco rod of a smoking product (2), wherein the medium is introduced on a drum (1) of a cigarette machine, after the rod is formed.

Claim 2. (Amended) The method as set forth in claim 1, wherein the flowable medium is introduced as a material selected from the group of: liquid, pasty, powdery, filiform or gaseous medium.

Claim 3. (Amended) The method as set forth in claim 1, wherein the flowable medium is introduced into the rod of the smoking product by a hollow mandrel (16) by inserting the hollow mandrel (16) into a front end and discharging the medium from the hollow mandrel while withdrawing it from the rod.

Claim 4. The method as set forth in claim 3, wherein the hollow mandrel (16) is moved at a uniform speed with respect to the rod when introducing the medium, allowing distribution of the medium over the rod.

Claim 5. (Amended) The method as set forth in claim 1 wherein the medium is introduced on the drum (1) of a filter assembler of a cigarette machine.

Claim 6. (Amended) The method as set forth in claim 3 wherein the hollow mandrel (16) is held on a carrier drum (5) rotating synchronously with the drum (1).

Claim 7. (Amended) The method as set forth in claim 3 wherein the hollow mandrel (16) is provided with screw-like outer grooves, is inserted into and extracted from the rod with auto-rotation in opposite directions for inserting and extracting.

Claim 8. (Amended) The method as set forth in claim 6 wherein the flowable medium is supplied to the hollow mandrel (16) by the rotational centrifugal forces of the rotating carrier drum (5).

Claim 9. (Amended) The method as set forth in claim 6 wherein the flowable medium is supplied to the hollow mandrel (16) by a pump.

Claim 10. (Amended) The method as set forth in claim 8 wherein the flow of the medium is regulated by a valve.

Claim 11. (Amended) A device for supplying a flowable medium to the tobacco of a smoking product (2) comprising a means by which the medium is introduced on a drum (1) of the cigarette machine, after the rod has been formed.

Claim 12. (Amended) The device as set forth in claim 11, further comprising a hollow mandrel (16), by means of which the flowable medium is introduced into the rod of the smoking product by inserting the hollow mandrel (16) into the front end and discharging the medium from the hollow mandrel while withdrawing it from the rod.

Claim 13. (Amended) The device as set forth in claim 12, further comprising an axial movement means (5, 6, 7, 8, 9), which moves the hollow mandrel (16) at a uniform speed with respect to the rod when introducing the medium, allowing the medium to be distributed over the rod.

Claim 14. (Amended) The device as set forth in claim 11 wherein a drum (1) of a filter assembler of a cigarette machine is used as a holding means for the smoking product (2) when introducing the medium.

Claim 15. (Amended) The device as set forth in claim 12 further comprising a carrier drum (5) rotating synchronously with the drum (1) as a holding device for the hollow mandrel (16).

Claim 16. (Amended) The device as set forth in claim 13 wherein the axial movement means comprises a sliding part (6) on which the hollow mandrel (16) may slide axially when being inserting into or extracted from the rod, wherein the axial movement is generated via an inclined plate (9) on which a running bearing (7, 8) connected to the sliding part (6) runs off.

Claim 17. (Amended) The device as set forth in claim 13 further comprising a rotating means (11, 12, 13, 32) with which the hollow mandrel (16) is provided with screw-like outer grooves, and is further provided with auto-rotation when it is inserted into the rod and extracted from it.

Claim 18. (Amended) The device as set forth in claim 17 wherein the rotating means comprises a rotating bearing (32) for the application body (10), to which the hollow mandrel (16) is fastened, as well as toothed wheels (11) on the circumference which mesh with respective tooth meshings (12, 13) and effect the respective auto-rotation when the hollow mandrel (16) and the application body (10) is moved axially.

Claim 19. (Amended) The device as set forth in claim 15 further comprising a supplying means (25, 26) which supplies the flowable medium to the hollow mandrel (16) and rod by means of the rotational centrifugal forces of the rotating carrier drum (5).

Claim 20. (Amended) The device as set forth in claim 19 wherein the supplying means comprises a conduit (26) centered on the rotational axis of the carrier drum (5), from which the respective application bodies (10) and hollow mandrels (16) are fed with the medium via radially arranged, rotating feed lines (25).

Claim 21. (Amended) The device as set forth in claim 11 further comprising a pump, by means of which the flowable medium is supplied to the hollow mandrel (16).

Claim 22. (Amended) The device as set forth in claim 19 further comprising a valve means (15, 27-31), using which the flow of the medium is regulated.

Please cancel Claims 23 - 25.

Please add the following new claims.

Claim 26. (New) A device for supplying a flowable medium to the tobacco column of a cigarette on a drum, comprising:

a hollow mandrel affixed to an application body, said mandrel in fluid communication with a flowable medium, said hollow mandrel axially movable by a guide and sliding part, said

mandrel located on a carrier drum rotating synchronously with said drum;

a cam plate reciprocally driving said sliding part;

a rotating mechanism (11, 12, 13, 32) affixed to said hollow mandrel, said hollow mandrel provided with screw-like outer grooves;

a supplying conduit (25, 26) which supplies the flowable medium to said hollow mandrel (16) and said application body.

Claim 27. (New) The device of claim 26 wherein said conduit (26) is centered on the rotational axis of said carrier drum (5) from which said application body (10) is fed with said medium through a radially arranged rotating feed line (25).

Claim 28. (New) The device of claim 26 wherein said mandrel is provided with auto-rotation in opposing directions when inserted and extracted from said cigarette.

Claim 29. (New) The device of claim 28 wherein said rotating mechanism has a rotating bearing for said application body to which said hollow mandrel is fastened, as well as toothed wheels on the circumference which mesh with respective tooth meshings and effect said respective auto-rotation when said hollow mandrel is moved axially.

Claim 30. (New) A device for supplying a flowable medium to the tobacco column of a cigarette on a drum, comprising:

an auto-rotating hollow mandrel affixed to an application body, said mandrel in fluid

communication with a flowable medium, said hollow mandrel axially movable by a guide and sliding part, said mandrel located on a carrier drum rotating synchronously with said drum, a cam plate reciprocally driving said sliding part;

a rotating mechanism affixed to said hollow mandrel, said hollow mandrel provided with screw-like outer grooves;

a supplying conduit which supplies the flowable medium to said hollow mandrel and said application body.

Claim 31. (New) The device of claim 30 wherein said auto-rotation is in opposing directions when inserted and extracted from said cigarette.

Claim 32. (New) A device for supplying a flowable medium to the tobacco column of a cigarette on a drum, comprising:

an auto-rotating hollow mandrel affixed to an application body, said mandrel in fluid communication with a flowable medium, said hollow mandrel axially movable by a guide and sliding part, said mandrel located on a carrier drum rotating synchronously with said drum, a cam plate reciprocally driving said sliding part;

a rotating mechanism affixed to said hollow mandrel, said hollow mandrel provided with screw-like outer grooves;

a supplying conduit which supplies the flowable medium to said hollow mandrel and said application body;

wherein said rotating mechanism has a rotating bearing for said application body to which

said hollow mandrel is fastened, as well as toothed wheels on the circumference which mesh with respective tooth meshings and effect said respective auto-rotation when said hollow mandrel is moved axially.

Claim 33. (New) A device for supplying a flowable medium to the tobacco column of a cigarette on a drum, comprising:

a hollow mandrel affixed to an application body, said mandrel in fluid communication with a flowable medium, said hollow mandrel axially movable by a guide and sliding part, said mandrel located on a carrier drum rotating synchronously with said drum, a cam plate reciprocally driving said sliding part;

a rotating mechanism affixed to said hollow mandrel, said hollow mandrel provided with screw-like outer grooves;

a supplying conduit which supplies the flowable medium to said hollow mandrel and said application body.

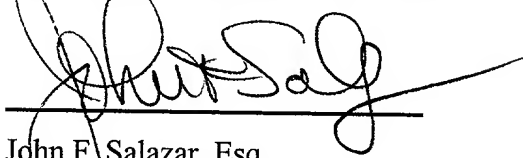
said conduit centered on a rotational axis of said carrier drum from which said application body is fed with said medium through a radially arranged rotating feed line.

CONCLUSIONS

Only claims 1-22 and 26-33 are pending in the present application. Please contact me should there be any questions or concerns regarding this Preliminary Amendment.

Very truly yours,

MIDDLETON & REUTLINGER

A handwritten signature in black ink, appearing to read "John F. Salazar", written over a horizontal line.

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VERSION OF MARKINGS TO SHOW CHANGES

- Claim 1. (Amended) A method for supplying a flowable medium to the tobacco rod of a smoking product (2), wherein the medium is introduced on a drum (1) of a cigarette machine, after the rod is formed.
- Claim 2. (Amended) The method as set forth in claim 1, wherein the flowable medium is introduced as a material selected from the group of: liquid, pasty, powdery, filiform or gaseous medium.
- Claim 3. (Amended) The method as set forth in claim 1 [or 2], wherein the flowable medium is introduced into the rod of the smoking product[, in particular a cigarette,] by [means of] a hollow mandrel (16)[, in particular] by inserting the hollow mandrel (16) into a front end and discharging the medium from the hollow mandrel while withdrawing it from the rod.
- Claim 5. (Amended) The method as set forth in [any one of] claim[s] 1 [to 4,] wherein the medium is introduced on the [an already available or additional] drum (1) of [the] a filter assembler of [the] a cigarette machine.
- Claim 6. (Amended) The method as set forth in [any one of] claim[s] 3 [to 5,] wherein the hollow mandrel (16)[, in particular together with other hollow mandrels,] is held on a carrier drum (5) [or section of a carrier drum] rotating synchronously with the drum (1).
- Claim 7. (Amended) The method as set forth in [any one of] claim[s] 3 [to 5,] wherein the hollow mandrel (16)[, which in particular] is provided with screw-like outer grooves, is inserted into and extracted from the rod with auto-rotation[, in particular with auto-rotation] in opposite directions for inserting and extracting.

Claim 8. (Amended) The method as set forth in claim 6 [or 7,] wherein the flowable medium is supplied to the hollow mandrel (16) [and/or rod] by [means of] the rotational centrifugal forces of the rotating carrier drum (5).

Claim 9. (Amended) The method as set forth in claim 6 [or 7,] wherein the flowable medium is supplied to the hollow mandrel (16) [and/or rod] by [means of] a pump.

Claim 10. (Amended) The method as set forth in [any one of] claim[s] 8 [or 9,] wherein the flow of the medium is regulated by [means of] a valve[/control means].

Claim 11. (Amended) A device for supplying a flowable medium to the tobacco of a smoking product (2)[, characterized in that it] compris[es]ing a means by which the medium is introduced on a drum (1) of the cigarette machine, after the rod has been formed.

Claim 12. (Amended) The device as set forth in claim 11, [characterized in that it] further compris[es]ing a hollow mandrel (16), by means of which the flowable medium is introduced into the rod of the smoking product[, in particular a cigarette, in particular] by inserting the hollow mandrel (16) into the front end and discharging the medium from the hollow mandrel while withdrawing it from the rod.

Claim 13. (Amended) The device as set forth in claim 12, [characterized in that it] further compris[es]ing an axial movement means (5, 6, 7, 8, 9), which moves the hollow mandrel (16) at a uniform speed with respect to the rod when introducing the medium, allowing the medium to be distributed over the rod.

Claim 14. (Amended) The device as set forth in [any one of] claim[s] 11 [to 13, characterized in that an already available or additional] wherein a drum (1) of [the] a filter assembler of [the] a cigarette machine is used as a holding means for the smoking product (2) when introducing the medium.

Claim 15. (Amended) The device as set forth in [any one of] claim[s] 12 [to 14, characterized in that it] further compris[es]ing a carrier drum (5) [or section of a carrier drum] rotating synchronously with the drum (1) as a holding device for the hollow mandrel (16)[, in particular also for other hollow mandrels].

Claim 16. (Amended) The device as set forth in [any one of] claim[s] 13 [to 15, characterized in that] wherein the axial movement means comprises a sliding part (6) on which the hollow mandrel (16)[, in particular fastened to an application body (10),] may slide axially when being inserting into or extracted from the rod, wherein the axial movement is generated via an inclined plate (9)[, in particular a cam plate,] on which a running bearing (7, 8) connected to the sliding part (6) runs off.

Claim 17. (Amended) The device as set forth in [any one of] claim[s] 13 [to 16, characterized in that it] further compris[es]ing a rotating means (11, 12, 13, 32) with which the hollow mandrel (16)[, which in particular] is provided with screw-like outer grooves, and is further provided with auto-rotation when it is inserted into the rod and extracted from it[, in particular with auto-rotation in opposing directions when inserted and extracted].

Claim 18. (Amended) The device as set forth in claim 17[, characterized in that] wherein the rotating means comprises a rotating bearing (32) for the application body (10), to which the hollow mandrel (16) is fastened, as well as toothed wheels (11) on the circumference which mesh with respective tooth meshings (12, 13) and effect the respective auto-rotation when the hollow mandrel (16) and[/or] the application body (10) is moved axially.

Claim 19. (Amended) The device as set forth in claim[s] 15 [to 18, characterized in that it] further compris[es]ing a supplying means (25, 26) which supplies the flowable medium to the hollow mandrel (16) and[/or] rod by means of the rotational centrifugal forces of the rotating carrier drum (5).

Claim 20. (Amended) The device as set forth in claim 19[, characterized in that] wherein the supplying means comprises a conduit (26) centered on the rotational axis of the carrier drum (5), from which the respective application bodies (10) and[/or] hollow mandrels (16) are fed with the medium via radially arranged, rotating feed lines (25).

Claim 21. (Amended) The device as set forth in [any one of] claim[s] 11 [to 18, characterized in that it] further compris[es]ing a pump, by means of which the flowable medium is supplied to the hollow mandrel (16) [and/or the rod].

Claim 22. (Amended) The device as set forth in [any one of] claim[s] 19 [to 21, characterized in that it] further compris[es]ing a valve[/control] means (15, 27-31), using which the flow of the medium is regulated.